THE PORT AUTHORITY *OF NY & NJ*

Memorandum

TO: William Oorbeek, Commanding Officer
FROM: Michael A. Tobia
DATE: November 26, 2002
SUBJECT: **ELEVATOR EVACUATION**

COPY TO: P. Bauer, File

As per your request, please find the Elevator Evacuation Lesson Plan.

Michael A. Tobia
Captain/Commanding Officer
Police Academy

Course: ELEVATOR EVACUATION	Trainee Level: BASIC
Training Section: B-1	Time Required: 50 MIN.

Prepared By: P.O. JOHN MCLOUGHLIN	Date Prepared: 9/2/98
Reviewed By:	Date Revised:

Instructional Goal: POLICE PERSONNEL WILL HAVE THE ABILITY TO UNDERSTAND BASIC ELEVATOR EVACUATION.
POLICE PERSONNEL WILL BE ABLE TO ASSIST WITH AN EVACUATION.
POLICE PERSONNEL WILL BE ABLE TO FUNCTION WITH SAFETY IN THE PERFORMANCE OF AN ELEVATOR EVACUATION.

Performance Objectives: DURING A 15 MINUTE FIELD DEMONSTRATION COMPLETE A COMPANION CAR EVACUATION WITHIN ALL SAFETY PROCEDURES TAUGHT.
COMPLETE 80% CORRECT WRITTEN TEST ON ELEVATOR INCIDENTS AND EMERGENCIES
DURING A 5 MINUTE FIELD DEMONSTRATION COMPLETE THE OPERATION OF PHASE I AND PHASE II FIREMENS RETURN
10 OUT OF 10 DEFINITION OF TERMS WRITTEN TEST ON ELEVATOR COMPONENTS AND TERMINOLOGY.

Method of Presentation: LECTURE / DEMONSTRATION / PRACTICE + DRILL	Classroom Requirements: BLACK BOARD / EASEL
Student Materials: NONE	
Training Aids, Supplies, Equipment: HANDOUTS SAFETY EQUIPMENT FOR ELEVATORS	Bibliography: GUIDE FOR EMERGENCY EVACUATION OF PASSENGERS FROM ELEVATORS ASME A17.4-1991 AN AMERICAN NATIONAL STANDARD THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

LESSON PLANS: ELEVATOR EVACUATION

I LESSON OBJECTIVES

1) Know operational procedures recommended for elevator Incidents and Emergencies.
   15 minute field demonstration on companion car evacuations and a written test.

2) Know the guidelines for the utilization of elevators during fire situations.
   5 minute field demonstration on the Phase I and Phase II firemens return.

3) Familiarization with elevator components and terminology which are essential in effective and safe operations.
   10 question definition of terms written test.

II SAFETY PROCEDURES

1) Safety Harness

2) Safety Line - fixed
   munter hitch

3) Main Line Power Shut Off

III TERMINOLOGY AND ELEVATOR COMPONENTS

1) Refer to hand outs.

IV TYPES OF ELVATOR CONDITIONS REQUIRING POLICE ACTION

1) Elevator Incidents - Stuck elevator with trapped passengers not in immediate danger with no evidence of injury or medical emergency.

2) Elevator Emergencies - A situation where one or more of the following exist:
   * FIRE ENDANGERING PASSANGERS
   * PASSENGER(S) INJURED OR SICK (MEDICAL EMERGENCY)
   * PASSENGER IN PANIC
   * E.D.P. ON ELEVATOR WITH OTHER PASSENGERS

V TYPES OF EMERGENCY EVACUATIONS

1) Companion Car - Chase Car

2) Top of Car - Hoistway Door
   Hole In Wall

3) Frontal - Hoistway Door
   Hole In Wall

VI SUMMARY - LESSONS COVERED

1) SAFETY PROCEDURES

2) REQUIRED POLICE ACTION - INCIDENT
EMERGENCY

3) TYPES OF EMERGENCY EVACUATION - COMPANION CAR
- TOP OF CAR - HOISTWAY WALL
- FRONTAL - HOISTWAY WALL

4) TERMINOLOGY AND ELEVATOR COMPONENTS

ELEVATOR TERMS AND DEFINITIONS

CAR DOOR	Elevator Car Door
COUNTERWEIGHTS	Used To Counter Balance The Weight of The Elevator Car.
ELEVATOR MACHINERY ROOM	Area where the equipment that raises and lowers the elevator is located. Local and shuttle cars EMR located. Two floors above highest floor Bank Services. Cars servicing 310 Level to 107 floor. EMR three floors above on 110 floor.
ELEVATOR MOTOR	Turns winding drum raising and lowering elevator car.
EMERGENCY STOP BUTTON	Elevator car button which when activated cuts power to car and sounds alarm bell. Note: DO NOT RELY ON THIS BUTTON, ELEVATOR POWER SWITCH MUST BE USED TO ENSURE MOTOR POWER IS OFF.
FIREMAN SERVICE	Feature which enables individual control of elevators.
FLOOR CALL BUTTON	Located at elevator floor landing, used to call car to the floor when service is desired.
GOVERNOR	Regulated elevator car speed also engages car safeties and shuts off electrical power in the event of free fall or over speed.
GOVERNOR ROPE	A wire rope or cable which travels with the car. If engaged by the governor it mechanically activates the car safeties.
HOISTWAY	The shaft the elevator moves in. TYPES: Single car (local service), multi car (local service), single car blind (express service), multi car blind (express service).

HOISTING CABLE	Cable (cables) used to raise and lower the elevator.
HOISTWAY DOOR	Door leading from landing to elevator shaft.
INTERLOCK	A switch on hoistway door, and some emergency exits that will prevent the elevator from moving when in open position.
KEY 1620	Official fire department alarm box key.
MACHINE GENERATOR ROOM	Generator room one floor below the elevator machinery room.
MAIN ELECTRICAL POWER SWITCH	Located in elevator machinery room (EMR), each switch controls the operation of one elevator.
TERMINAL LANDING	Lowest landing for discharge of passengers, may be at ground floor or in sky lobby.

ELEVATOR INCIDENTS AND EMERGENCIES

Elevator operations can be divided into two categories, elevator "INCIDENTS" and elevator "EMERGENCIES".

An elevator incident is defined as a stuck elevator with trapped passengers not in immediate danger and no evidence of injury or medical problems.

NOTE: Conditions must be constantly monitored, an elevator incident may escalate in to an elevator emergency.

An elevator emergency is defined as a situation where one or more of the following exist:

* Fire endangering passengers in a stuck elevator

* Passenger of stuck elevator injured or sick (medical emergency)

* Passenger of stuck elevator in panic

* E.D.P. on elevator with other passengers

Evacuation under any of these circumstances will necessitate an immediate and timely evacuation.

* Important: Once Police are advised of either condition. A police officer must be committed to monitor people in problem car, NO MATTER how long this will take.

STANDARD OPERATING PROCEDURES FOR CODE 1 INCIDENTS OR EMERGENCIES

Code 1 Definition: Passenger entrapment inside an elevator car due to defective or nonfunctioning electrical or mechanical devices and equipment.

Police Response:

1. Elevator mechanic can move stalled elevator to a landing and people can walk off. Verify everyone is all right and file Aided report.

2. Elevator mechanic unable to move car people will be in elevator for extended time period. Elevator mechanic recommends emergency evacuation. Or other criteria is met for emergency evacuation.

3. Types of emergency evacuations

    * Evacuation - Companion car - chase car

    * Evacuation - Top of car from above hoistway door.

    * Evacuation - Cut hole in wall - removed from elevator top hatch or front car door

    * Evacuation - Frontal into elevator lobby (only used as extreme last resort)

* Important: Police must monitor conditions on stalled elevator once notified by operations.

COMPANION CAR EVACUATION

PERSONNEL REQUIREMENTS

Three Police Officers
Tour Commander

-Tour Commander will supervise

-One Police Officer will respond to the appropriate motor room.

-One Police Officer will obtain the elevator evacuation cart and will meet at the companion car with second Officer and Tour Commander.

-Tour Commander will get a situation assement from the elevator mechanic (0800-2400 Hrs)

-Elevator mechanic will accompany Police on companion - Chase Car.

* Important- Use the elevator mechanics expertise. Don't be afraid to rely on or request their opinion.

-No Other Personnel Other than Police and elevator mechanic are to be on Chase Car.

-Put emergency equipment on elevator and place Chase Car on inspection speed.

-Two Officers will put safety harness on and rig life line to rear of harness. Shock absorber towards body.

-Have motor room kill power to disabled car

-Open side panel on Chase Car. Use over ride pole on safety switch and manually move elevator adjacent to stalled car.

-Have motor room kill power to Chase car.

-Hook up safety line on cross bar in open door way.

-Reach across shaft to release side door of stalled elevator. Bang on side of car and announce to people on stalled car to move away from door panel.

-Place cross over Board between cars.

-On shuttle cars place railing between cars (lobby - 44 Skylobby and lobby - 78 Skylobby)

-One Officer will cross over to stalled car and give whatever Aid is necessary.

-Cross over officer will move his safety line and hook up to cross bar in stalled car.

-Move passengers to rescue car. Officers protecting open side of shaft.

-Upon completion of evacuation remove equipment close side panel and restore power to chase car. Respond to lobby of that car.

-Have officer in motor room secure .

-Verify everyone is all right. Get names, complete Aided report.

-When possible debrief and critique your evolution.

*** All Officers operating next to or in elevator shaft will don safety harness and hook up to safety line.**

LESSON PLAN - *FIELD DEMONSTRATION PRACTICE & DRILL*

0700 - 0800 Class Room - Review Handouts
Review Safety Harnesses
Review Fireman's Return Key Phase 1 and Phase 2
Review Operational Procedures for Emergency Rescue

0800-0900 Equipment Tour - Elevator Pits B-1, B-2, 43 Floor
Review Starters Panel
Activate Fireman's Return
Motor Rooms 47 Floor, 56 Floor, 110 Floor
Motor Generator Room 62 Floor

0900-1100 Shuttle Car Evacuation - Actual
Local Car Evacuation - Actual

Three Teams - 1 Motor Room
- 1 Stalled Car
- Chase Car

1100-1200 Lunch

1200-1300 K-2 Car Roof Top Evacuation - Both Extension Ladders

1300-1345 #4 WTC Equipment Tour 10th Floor Motor Room
Elevator Pits - Lobby

1345-1445 #5 WTC Equipment Tour 9th Floor Motor Room
B-1 Motor Room
B-1 Elevator Pits

COMPANION CAR EVACUATION

PERSONNEL REQUIREMENTS

Three Police Officers
Tour Commander

-Tour Commander will supervise

-One Police Officer will respond to the appropriate motor room.

-One Police Officer will obtain the elevator evacuation cart and will meet at the companion car with second Officer and Tour Commander.

-Tour Commander will get a situation assement from the elevator mechanic (0800-2400 Hrs)

-Elevator mechanic will accompany Police on companion - Chase Car.

* Important- Use the elevator mechanics expertise. Don't be afraid to rely on or request their opinion.

-No Other Personnel Other than Police and elevator mechanic are to be on Chase Car.

-Put emergency equipment on elevator and place Chase Car on inspection speed.

-Two Officers will put safety harness on and rig life line to rear of harness. Shock absorber towards body.

-Have motor room kill power to disabled car

-Open side panel on Chase Car. Use over ride pole on safety switch and manually move elevator adjacent to stalled car.

-Have motor room kill power to Chase car.

LESSON OBJECTIVES:

1. Operational procedures recommended to be used at elevator "Emergencies" and elevator "Incidents" in which people are trapped in stuck elevators.

2. Guidelines for the utilization of elevators during a fire situation.

3. Familiarization with elevator components and terminology which are essential in effective and safe operations.

The instructions and information presented can not be expected to cover all conditions that will confront us at elevator operations.

LESSON PLAN

0700 - 0800 Class Room - Review Handouts
Review Safety Harnesses
Review Fireman's Return Key Phase 1 and Phase 2
Review Operational Procedures for Emergency Rescue

0800-0900 Equipment Tour - Elevator Pits B-1, B-2, 43 Floor
Review Starters Panel
Activate Fireman's Return
Motor Rooms 47 Floor, 56 Floor, 110 Floor
Motor Generator Room 62 Floor

0900-1100 Shuttle Car Evacuation - Actual
Local Car Evacuation - Actual

Three Teams - 1 Motor Room
- 1 Stalled Car
- Chase Car

1100-1200 Lunch

1200-1300 K-2 Car Roof Top Evacuation - Both Extension Ladders

1300-1345 #4 WTC Equipment Tour 10th Floor Motor Room
Elevator Pits - Lobby

1345-1445 #5 WTC Equipment Tour 9th Floor Motor Room
B-1 Motor Room
B-1 Elevator Pits

HOISTING CABLE	Cable (cables) used to raise and lower the elevator.
HOISTWAY DOOR	Door leading from landing to elevator shaft.
INTERLOCK	A switch on hoistway door, and some emergency exits that will prevent the elevator from moving when in open position.
KEY 1620	Official fire department alarm box key.
MACHINE GENERATOR ROOM	Generator room one floor below the elevator machinery room.
MAIN ELECTRICAL POWER SWITCH	Located in elevator machinery room (EMR), each switch controls the operation of one elevator.
TERMINAL LANDING	Lowest landing for discharge of passengers, may be at ground floor or in sky lobby.

ELEVATOR TERMS AND DEFINITIONS

CAR DOOR	Elevator Car Door
COUNTERWEIGHTS	Used To Counter Balance The Weight of The Elevator Car.
ELEVATOR MACHINERY ROOM	Area where the equipment that raises and lowers the elevator is located. Local and shuttle cars EMR located. Two floors above highest floor Bank Services. Cars servicing 310 Level to 107 floor. EMR three floors above on 110 floor.
ELEVATOR MOTOR	Turns winding drum raising and lowering elevator car.
EMERGENCY STOP BUTTON	Elevator car button which when activated cuts power to car and sounds alarm bell. Note: DO NOT RELY ON THIS BUTTON, ELEVATOR POWER SWITCH MUST BE USED TO ENSURE MOTOR POWER IS OFF.
FIREMAN SERVICE	Feature which enables individual control of elevators.
FLOOR CALL BUTTON	Located at elevator floor landing, used to call car to the floor when service is desired.
GOVERNOR	Regulated elevator car speed also engages car safeties and shuts off electrical power in the event of free fall or over speed.
GOVERNOR ROPE	A wire rope or cable which travels with the car. If engaged by the governor it mechanically activates the car safeties.
HOISTWAY	The shaft the elevator moves in. TYPES: Single car (local service), multi car (local service), single car blind (express service), multi car blind (express service).

COMPANION CAR EVACUATION

PERSONNEL REQUIREMENTS

Three Police Officers
Tour Commander

-Tour Commander will supervise

-One Police Officer will respond to the appropriate motor room.

-One Police Officer will obtain the elevator evacuation cart and will meet at the companion car with second Officer and Tour Commander.

-Tour Commander will get a situation assement from the elevator mechanic (0800-2400 Hrs)

-Elevator mechanic will accompany Police on companion - Chase Car.

* Important- Use the elevator mechanics expertise. Don't be afraid to rely on or request their opinion.

-No Other Personnel Other than Police and elevator mechanic are to be on Chase Car.

-Put emergency equipment on elevator and place Chase Car on inspection speed.

-Two Officers will put safety harness on and rig life line to rear of harness. Shock absorber towards body.

-Have motor room kill power to disabled car

-Open side panel on Chase Car. Use over ride pole on safety switch and manually move elevator adjacent to stalled car.

-Have motor room kill power to Chase car.

POLICE TRAINING OPPORTUNITY

November 25, 2002

COURSE: POLICE VEHICLE CALIBRATION **#46-02**

The Lincoln Tunnel (LT) Command will be conducting Police Vehicle Calibration Training during the month of December 2002 (exact dates to be announced). The one (1) day training course will be conducted at the Lincoln Tunnel Command by a representative of Clayton Industries. This training course will cover the use of Clayton Industries *Master Speedometer Testing Machine*, as well as related Port Authority Police procedures and records management.

CRITERIA FOR SELECTION:

This Training Opportunity is being offered to:

Five (5) Police Officers who are permanently assigned to the Lincoln Tunnel;

And, who meet the following criteria:

- Have a good police performance record and not be the subject of any Disciplinary charges, unless the Superintendent of Police, in his sole discretion, determines that the basis of the charge(s) is unrelated to the training; and,
- Be *Highly Recommended* by his/her Commanding Officer to receive this training.

SELECTION:

Selection will be based on the applicant successfully meeting all criteria and limitations. Where two (2) or more applicants are equally qualified under the posted criteria, the selection of the successful applicant shall be based on job seniority (as defined in the appropriate MOA).

ACKNOWLEDGE RECEIPT OF THIS TRAINING OPPORTUNITY BY SIGNING ON THE APPROPRIATE LINE THEN FAX TO THE POLICE ACADEMY AT (201) 239-3868 PRIOR TO 1200 HOURS NEXT BUSINESS DAY.

SIGNATURE: _____ **DATE:** _____
Commanding Officer or Designee

COURSE: POLICE VEHICLE CALIBRATION **#46-02**

APPLICATION:

Application must be submitted to your Commanding Officer on PA Form #2265, Handwritten Memorandum.

THIS NOTICE TO BE POSTED FROM: November 25, 2002 through December 15, 2002

DEADLINE FOR APPLICATION TO COMMANDING OFFICER TO ATTEND: December 15, 2002

Michael A. Tobia
Captain/Commanding Officer
Police Academy

cc: All Facility Commanding Officers, All Bulletin Boards, Labor Relations, Police Headquarters File, Police Academy File, Senior Staff, CPD, PBA, SBA, DEA, LBA, ACU